

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001580**Date Inspected:** 27-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Cui Yi Ru, Zhang Zhong**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

**Bay 1:**

The QA Inspector randomly monitored the Submerged Arc production welding of closed ribs to Deck Plate DP031-001 at Weld Joint (WJ) Numbers 001, 002, 005, 006, 009 and 010 until the equipment malfunctioned and the welding operation was discontinued. Welding data was recorded by the QA Inspector on a separate spreadsheet.

**Bay 7 OBG:**

The QA Inspector randomly observed ZPMC Welder Wang Liansheng ID Number 051127, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2132-3 in the 2F (Horizontal Fillet) position, to tack weld various stiffeners to Floor Beam Sub-Assembly FB026-01. The QA Inspector randomly observed ZPMC CWI Zhang Zhong monitoring weld parameters. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC Welder Yuan Wensong ID Number 055491, utilizing the FCAW Process with ZPMC WPS WPS-B-T-2132-3 in the 2F position to tack weld various stiffeners during fit up to Floor Beam Sub-Assembly FB018-01. The QA Inspector randomly observed ZPMC CWI Zhang Zhong monitoring

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

weld parameters. Weld parameters appeared to comply with contract requirements.

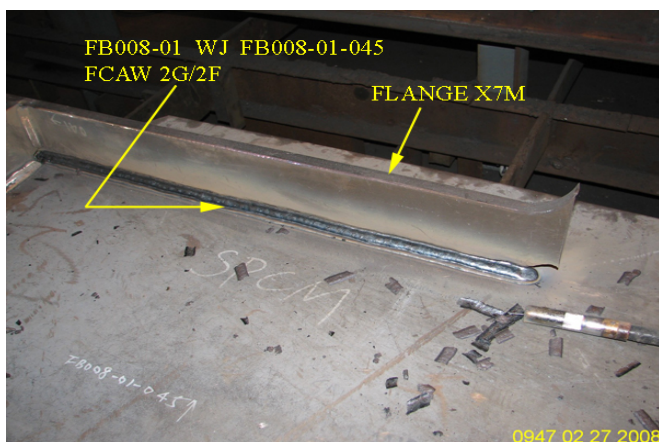
The QA Inspector randomly observed ZPMC Welders Wang Lingjian ID Number 051356 and Zhang Qinqun ID Number 044774, utilizing the FCAW Process with ZPMC WPS WPS-B-T-2132-3 in the 2F position to weld various stiffeners Floor Beam Sub-Assembly FB025-01. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters. The QA Inspector also randomly observed welding parameters and they are as follows: 280 amps, 29 volts with a travel speed of 437 millimeters for Mr. Wang and 291 amps, 28.5 volts with a travel speed of 440 millimeters for Mr. Zhong. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC Welder Hong Shuili ID Number 044815, utilizing the FCAW Process with ZPMC WPS WPS-B-T-2132-TC-U4b-F in the 2G (Horizontal Groove) position, to weld flange piece mark X7M to Floor Beam Sub-Assembly FB008-01 at WJ FB008-01-045. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. The QA Inspector also randomly observed welding parameters and they are as follows: 299 amps, 30.5 volts with a travel speed of 227 millimeters. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC Welder Liu Longxian ID Number 044786, utilizing the FCAW Process with ZPMC WPS WPS-B-T-2132-TC-U4b-F in the 2G (Horizontal) position, to weld a flange to Floor Beam Sub-Assembly FB003-07 at Weld Joint (WJ) FB003-07-002. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

Bay 8:

The QA Inspector randomly observed ZPMC Personnel performing heat straightening operations per ZPMC HSR1(T)-055 piece mark 28M Top p248(N), HSR1(T)-056 piece mark 47.6M Top p1424(E).



## Summary of Conversations:

There were no relevant conversations.

## Comments

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## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Franco,Charlie	Quality Assurance Inspector
<b>Reviewed By:</b>	Hager,Craig	QA Reviewer

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